

CLAIMS

1. An isolated human protein capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which is essentially comprised of SEQ ID NO:1.
2. An isolated human protein capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which comprises at least about 1000 amino acids as listed in SEQ ID NO:1.
3. An isolated human protein capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which comprises at least about 1040 amino acids as listed in SEQ ID NO:1
4. An isolated human protein capable of participating in the human PTCH/SHH pathway during embryonic development and/or carcinogenesis, which comprises at least about 1100 amino acids as listed in SEQ ID NO:1.
5. A medicament, comprising: a protein according to any of claims 1-4, or a nucleic acid encoding a protein according to any of claims 1-4.
6. A method of treating a condition involving tumors, comprising:  
administering a protein according to any of claims 1-4, or a nucleic acid encoding a protein according to any of claims 1-4 to a patient in need thereof.
7. A method of in vitro or in vivo diagnosis, wherein a protein according to any of claims 1-4, or a nucleic acid encoding a protein according to any of claims 1-4, is used.
8. A method of screening wherein a library of suitable candidate compounds is screened for modified drugs using a protein according to any of claims 1-4, as a lead compound.
9. A method of synthesis of a modified drug, wherein a protein according to any of claims 1-4 is used.
10. A modified drug identified by the method according to claim 8, or synthesized according to claim 9.
11. An antibody which specifically binds to a protein according to any of claims 1-4.

12. A recombinant cell expressing an antibody according to claim 11.
13. A kit for the detection of a human PTCH2 polypeptide comprising in a container a molecule selected from the group consisting of a protein according to any of claims 1-4, or an antibody which specifically binds to a protein according to any of claims 1-4.
14. Use of a nucleic acid encoding a protein according to any of claims 1-4, in gene therapy.
15. Use of a nucleic acid encoding a protein according to any of claims 1-4 as a probe, a primer, or a diagnostic reagent.